

Supplementary Information

Dispersibility of vapor phase oxygen and nitrogen functionalized multi-walled carbon nanotubes in various organic solvents

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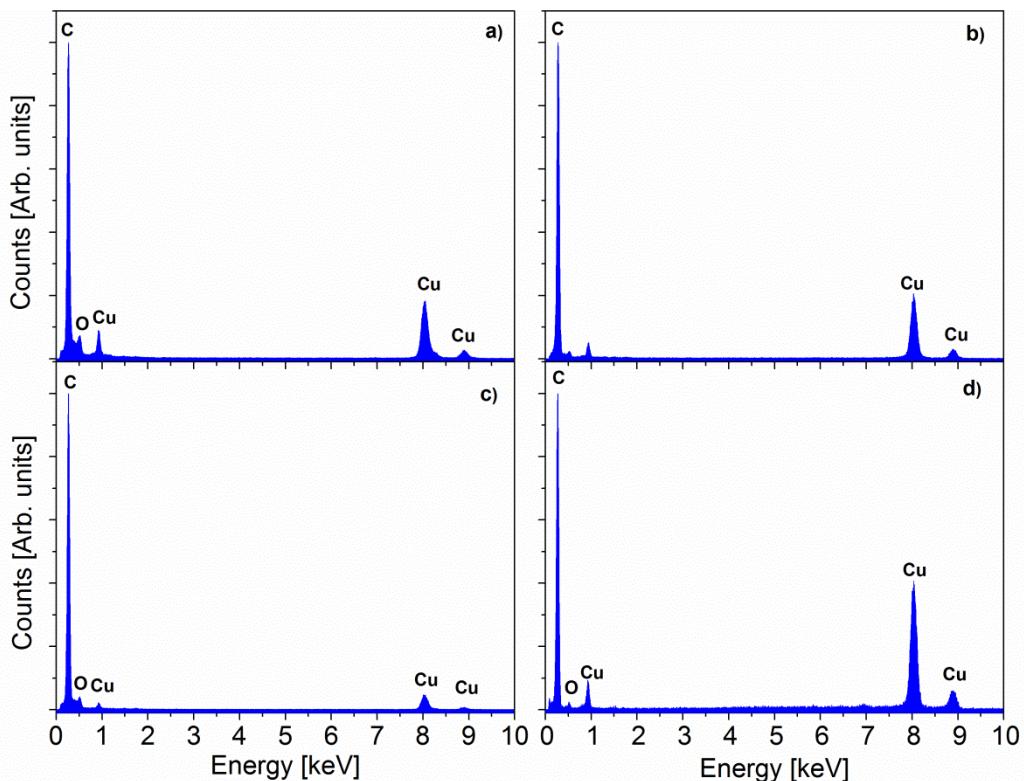
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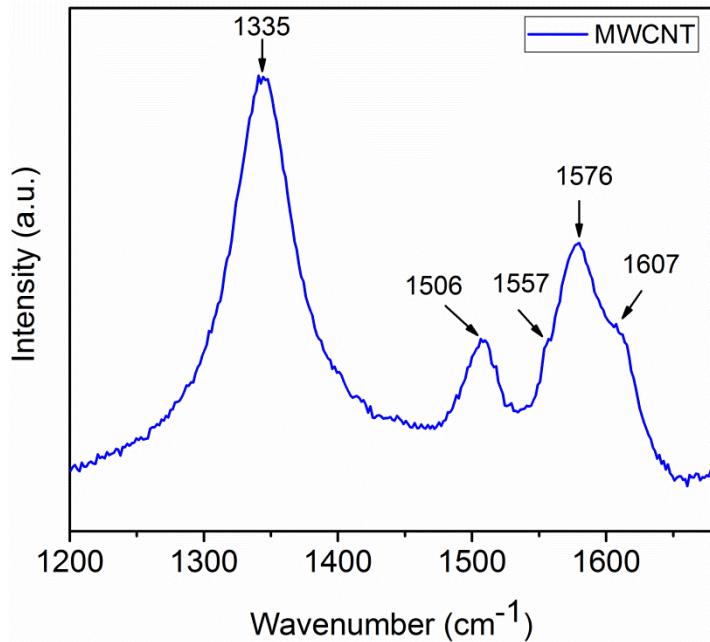
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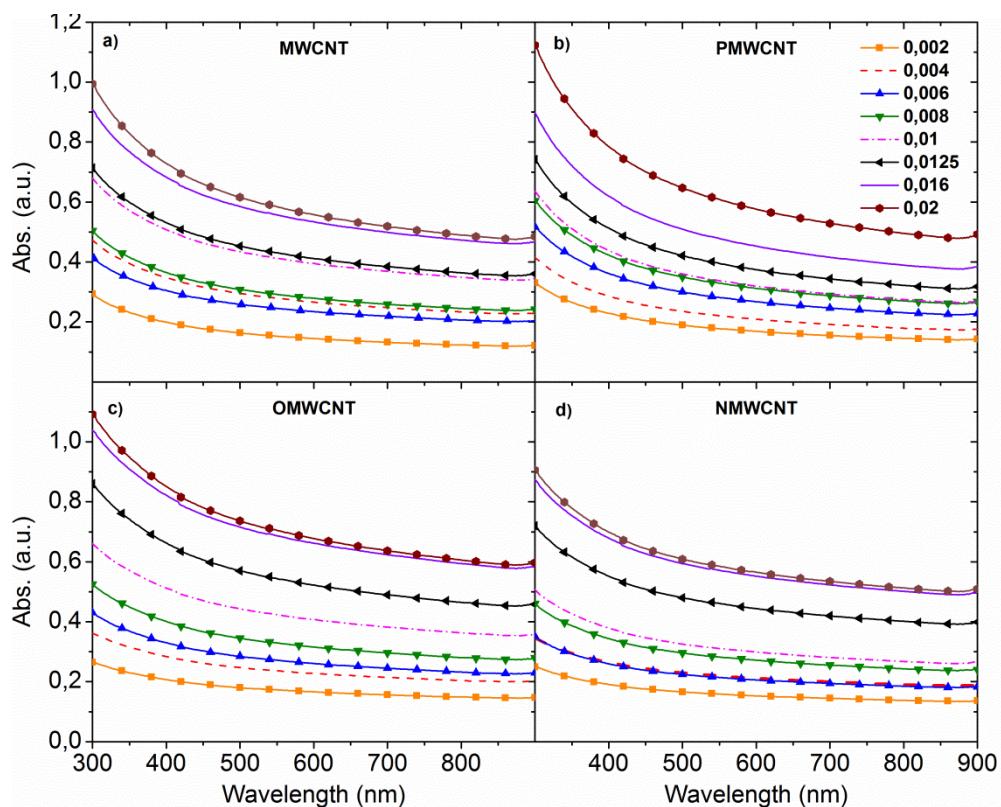
Supplementary Fig. S1. EDX spectra comparing the response of OMWCNT-48 (a), OMWCNT-72 (b), NMWCNT-48 (c) and NMWCNT-72 (d). The strong Cu peaks originate from the TEM Cu grid.

Samples	Initiation T (°C)	Oxidation T (°C)	Residual mass percent (%)
MWCNT	493.3	533.2	6.71
PMWCNT	500.6	542.95	14.57
OMWCNT-48	448.0	494.11	28.11
OMWCNT-72	435.4	479.37	7.37
NMWCNT-48	457.8	498.74	10.03
NMWCNT-72	456.0	488.84	9.06

Supplementary Table S1. The thermogravimetric parameters of analyzed CNTs.



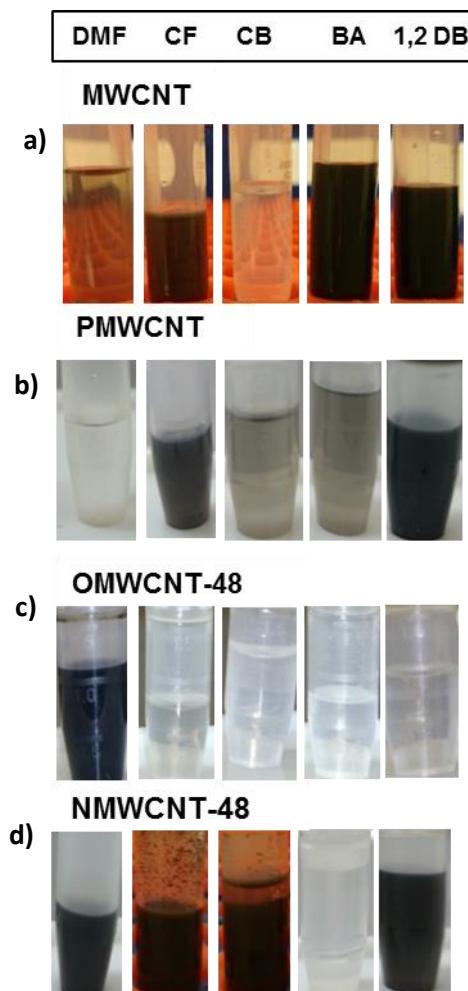
Supplementary Fig. S2. Raman spectrum of pristine MWCNT.



Supplementary Fig. S3. UV-Vis spectra of dispersed pristine MWCNTs (a), PMWCNT (b), OMWCNT-48 (c) and NMWCNT-48 (d) in 1,2 dichlorobenzene.

Tube	1,2 DB	BA	CF	CB	DMF
MWCNT	Yes	Yes	Yes	No	Yes
PMWCNT	Yes	Yes	Yes	Yes	No
OMWCNT-48	Yes	No	Yes	No	Yes
NMWCNT-48	Yes	Yes	No	No	Yes

Supplementary Table S2. Capability of different solvents for dispersion of CNTs.



Supplementary Fig. S4. Digital photo images of a) MWCNT, b) PMWCNT, c) OMWCNT-48 and d) NMWCNT-48 in organic solvents (DMF, CF, CB, BA and 1,2 DB).